DOCUMENT RESUME

ED 392 136 EA 027 363

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TITLE Year-Round Education: Is It Worth the Hassle?
PUB DATE Jan 96
NOTE 35p.; Paper presented at the University of British Columbia Robson Square Lecture Series (Vancouver, British Columbia, January 1996).
PUB TYPE Speeches/Conference Papers (150) -- Reports - Research/Technical (143)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Academic Achievement; Administrator Attitudes; Efficiency; Elementary Education; Evaluation Criteria; *Extended School Year; *Organizational Change; Outcomes of Education; Parent Attitudes; Performance; Public Schools; School Effectiveness; *School Schedules; *Year Round Schools
IDENTIFIERS *Utah

ABSTRACT

This paper presents findings of a study that examined the impact of year-round education on academic achievement in a large Utah school district. Student-achievement data for years 1990-95 were compared by type of school schedule. A case-study component examined the impact of school schedules used by two elementary schools--one adhered to a traditional calendar and the other followed a multitrack year-round calendar. Data were gathered through interviews with all four administrators and all six fifth-grade teachers and through a survey of 114 fifth-grade students and 123 parents. Multitrack schools appeared to provide a slightly superior educational experience for students in terms of enhancing reading ability as well as in terms of increasing the bottom of the range of scores within a school. Parents of both school types generally supported their respective school programs and calendars. Student academic performance in multitrack year-round schools over a 6-year period exceeded the performance of students in traditional schools, while nonacademic outcomes were roughly equal. The findings also identified issues that required more attention--issues of support services, inservice and professional development, staff collaboration and communication, and vacation time. However, administrators believed that these difficulties could be overcome by utilizing different communication strategies, by changing the timing of inservice activities, by extending school activities into the community, or by sponsoring a variety of public events. Some criteria for examining the efficiency of school schedules are suggested. Clarification of the distinctions between those school differences that are conceptual and those that are operational is important. Three tables are included. (Contains 24 references.) (LMI)

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YEAR-ROUND EDUCATION: IS IT WORTH THE HASSLE?

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A paper presented at the UBC Robson Square lecture series, January 1996.

Running Head: Is it worth the hassle?...

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- *Year-round schooling is just another innovation that the Ministry is trying to implement on the backs of administrators."*
- *The year-round schedule is a more natural way of learning.*
- *It is an advantage as it gives us a forum to debate the whole issue of change.*
- *Are we setting ourselves up to always deliver education cheaper?*
- *Why are we doing this?*

YEAR-ROUND EDUCATION: IS IT WORTH THE HASSLE?

For approximately 25 years, a number of school districts throughout the United States have experimented with a variety of forms of year-round schooling. By 1992, it was estimated (Mydans, 1991) that 1.3 million students in 23 states were being educated in some adaptation of a year-round model. In Canada, although the topic of year-round schooling has been studied with varying degrees of intensity for most of this century, very few projects have actually been implemented. In 1991, Williams Lake, British Columbia began to implement single-track year-round schooling, followed in 1992 by a few schools and districts in Alberta, with Canada' first multi-track school, Terry Fox Junior High School, opening in Calgary in July, 1995. In November 1995, the BC Ministry of Education introduced a plan to offer financial incentives to both schools and districts willing to implement what it calls an efficiency schedule for a trial period of five years.

Nevertheless, the comments cited at the beginning of this page and numerous others suggest that there is considerable conflict concerning the merits of introducing difference academic calendars into BC schools. Further, it appears that finding useful material in the available literature requires considerable diligent and careful separation of fact from opinion. It is sometimes difficult to determine the relevance of the literature because there have been few year-round schooling projects in Canada. In addition much of the work which has been done elsewhere lacks clarity concerning the effects of different calendars and accompanying instructional changes, the type of schedule which is being discussed, whether the perceptions being described are based on experience and knowledge, or on impressions and hearsay, especially there has been lack of clarity concerning conceptual as opposed to operational issues.

This paper will present research conducted in Utah (the state with the second highest number of year-round schools) and will attempt to separate many of the issues identified above. In the first phase of the study, which is still ongoing, I have examined student achievement data by school type for a large school district over a six year period to determine the effects of different schedules. I also studied the impact of three different elementary-school schedules (traditional, single-track year-round, and multi-track year-round) by interviewing administrators and fifth grade teachers, and by surveying the fifth grade students and their parents. At present I am enlarging the study to include six Utah schools, six Alberta schools, and whatever BC schools choose to implement an efficiency schedule. Following a brief overview of the relevant literature, the presentation and analysis of the data, the paper will identify, for purposes of further discussion, some possible criteria for the examination of efficiency schedules, some important conceptual issues which need further clarification, and some of the implications of the present study.

OVERVIEW OF LITERATURE

Existing literature identifies six major issues related to school-year organizational practices. Of major concern to policy makers, educators, and the general public is the impact of different organizational arrangements on students in terms of academic learning as well as student attitudes and behaviors. Other issues have been identified related to the impact on educational personnel (administrators, teachers, and district level), the effect on parents and families, on community life, and on facility use. The fiscal implications, costs and benefits, constitute a critical consideration. Finally, the role of policy agencies and governing bodies is raised occasionally.

Many studies report that year-round schooling has a positive impact on student grades (Baker, 1990; Bradford, 1993; Peletier, 1991; Perry, 1993). Others find neither positive nor negative impact (Goren & Carriedo, 1986; Hazelton et al, 1992; Zykowski et al. 1991). In fact, only one study (Quinlan et al. 1987) reported some negative effects on student achievement. However, the complexity of the effects of different calendars on student achievement is frequently

confounded in the literature. Sometimes there is no indication whether single-track or multi-track arrangements have been studied. Some studies mention that a changed calendar has been accompanied by changes in instructional strategies or curriculum (interdisciplinary or thematic instruction, team teaching, etc.); but, little attention is paid to the nature of the changes or the extent to which a similar change without a new calendar might be associated with similar differences in student achievement. In terms of non-academic effects, in general the research indicates that year-round education is associated with positive student attitudes (Alkin, 1983; Baker, 1990; Gandara, 1992), with improved student attendance (Bradford, 1993; White, 1987), and with reduced vandalism and crime (Brekke, 1983; Merino, 1983).

The literature also identifies an increased workload for administrators (Alkin, 1983; Shields & Oberg, 1995), and both positive and negative impacts on teachers (Christie, 1989; Webster & Nyberg, 1992). The situation is similar for parents, although the large majority of parents who have experienced both traditional and year-round calendars support the latter (Alkin, 1983; Zykowski et al, 1991). In fact, many articles focus on pre-implementation concerns -- concerns which Shields & Oberg (1995); and others (Alkin, 1983) have found tend not to persist after implementation. Other reports claim "success" or "failure" after only one year of implementation (Baker, 1990; Greenwell et al. 1993), with almost exclusive and inappropriate reliance on student achievement as measured by standardized test scores. Other literature falls under the heading of advocacy, both for (Ballinger, 1987; Brekke, 1985) and against (British Columbia Teachers Federation, 1994; Kirman, 1991).

Finally, the consensus with respect to fiscal costs and benefits is that single-track year-round schools may (but do not have to) cost more than traditional schools; indeed, this is especially related to the type of extra or intercession programs schools may choose to operate. Multi-track schools, in contrast, seem to cost more to operate than would the same school on a traditional calendar, but significant costs may accrue to a district in terms of per pupil expenditures.

THE RESEARCH STUDY

Delphi District is one of the largest and most rapidly growing districts in Utah. Its total student enrollment is over 57,000. Of these, 31,000 are elementary school students, 36% of whom are being educated in 12 year-round schools, ranging in size from 410 to 1242 students. (The other elementary school students are in 34 schools with populations between 366 and 854 students.)[1] The school district provided standardized test data, by school, which have been accumulated since the Statewide Testing Program was introduced in 1990. These data were accompanied by an indication of the achievement predicted for each school in each year. This is a complex indicator, calculated by the state based on SES, ethnic mix, and previous academic achievement. Thus average student performance could be identified for each year according to the type of school calendar. The district also indicated the starting date for year-round education for each school. Following the general examination of achievement test data, two schools in this district were selected for in-depth study: the largest traditional calendar school, and a multi-track year round school of approximately similar size and student population. At the time of the pilot study, this district did not have any singe-track year-round schools, so one was chosen from a neighboring district. For each school, the administrators were interviewed at length, all grade five teachers with experience in more than one schedule were interviewed, a questionnaire was administered to students (EPQ) to identify non-academic outcomes of different school calendars, and a survey was completed by the parents of these same students. In all, 114 student and 123 parent surveys were completed for this first phase of the study.

THE FINDINGS

This section will first describe the general district achievement patterns which were identified, and then examine the student data concerning non-academic outcomes. This will be

[1] While the general details of the research design are provided here, anyone wishing more information concerning the research itself, the instruments used, or the literature base should feel free to contact the author.

followed by a summary of the data from parent surveys, followed by information provided by both teachers and administrators in the different types of schools.

How Do Students Perform?

Although standardized tests provide only limited information concerning the progress and achievement of individual students, the strength of this form of assessment is that is enables the examination of trends over a period of time. The standardized test data which were provided by Delphi district personnel for the purposes of this study consisted of a list of scores, by school, achieved by fifth grade students on the total test battery and the subtests of the Stanford Achievement Test administered annually as a requirement of the Statewide Testing Program (introduced in 1990). These scores were listed by school, subtest, and by year. At the time (Spring, 1995), there were 12 multi-track year-round schools in the district. Four had been on this schedule since 1989, three since 1990, one since 1991, and the remaining four since 1992. Thirty-four other schools remained on the traditional year, single track system.

A t-test for independent samples with unequal groups identified only one statistically significant difference between the two types of school. Student scores for reading, in 1994, were found to be significantly better in multi-track schools than in traditional year schools ($t = 2.24$; $p. = .032$; $sign. < .05$). All other differences were found to be non-significant, although in each case, the mean scores for year-round schools were higher than for traditional schools (see Table 1). Thus, based solely on a comparison of the mean scores, it appears that academic achievement is slightly higher in multi-track year-round schools.

In order to provide a truer sense of the school effects concerning student academic achievement, a predicted range of achievement is determined by state officials for each SAT test and sub-test. This band is calculated based on a complex formula which attempts to take into consideration factors relevant to socio-economic status and student school performance. When all of the scores from 1990 - 1995 were compared to the predicted achievement band for each school, it was found that 42% of year-round schools had, at some time during the six year period,

at least one score below the predicted band compared with 65% of the traditional schools. However, during the same six year period, only one year-round school had a score above the predicted range while 6 or 18% of traditional schools did. However, if the scores achieved by 5th grade classes in schools with designated district-level programs for gifted students are excluded, then, the percentage of scores exceeding the predicted range for both types of school is similar -- less than one percent of the scores. Table 2. shows the predicted achievement bands and the raw scores for a few selected schools of each type in order to clarify the concept.

The scores for 1995 are particularly important, for they represent the most accurate longitudinal data available. Ten (or 30%) had scores below the SAT predicted range; only one year-round school had any score below the SAT predicted range for the school -- and this was one of the four schools which had moved most recently (1992) to a year-round calendar. This represented 13% of test scores from traditional schools and only 1% of scores from multi-track schools. As demonstrated by Schools A and B on Table 2, most of the year-round schools showed considerable improvement after being on a multi-track system for three years or more.

In general then, based on these six year achievement data from this school district, students attending traditional schools had seven times more chance of being in a class in which their mean achievement fell below the predicted range than did students attending multi-track schools (3% compared to 21%). Thus, we can assert, based on a comparison of raw scores as well as on achievement relevant to the predicted range, that achievement gains in multi-track year-round schools surpass those in traditional schools -- especially in two areas: reading, and improving the lower range of student achievement. The ongoing study will continue to monitor these data as well as to probe and disaggregate them for evidence of impact on specific groups of students (gifted, ESL, etc.).

Non-academic Measures of Student Performance

The Educational Process Questionnaire was designed to examine student non-academic outcomes in three major areas: students' perceptions of themselves as learners, students'

perceptions of their school experiences, and their perceptions of teachers' behavior towards them. For this study, these questionnaires were given to all fifth grade students in the traditional and multi-track school. The outcomes are reported by means of 12 composite scales identified in Table 3. In addition, a number of individual questions asked students about other aspects of schooling: the amount and nature of their homework assignments, their attendance record, and the importance which they and their families accord to education. Students were also asked to indicate, if they had attended schools with calendars different from the one they presently attend, what type of schedule they preferred, whether their friends were in the same school, and (where relevant) the same track, and about the timing of family vacations. The results of student responses to the Educational Process Questionnaire are summarized in Table 3.

Based on student responses to scales whose Cronbach alpha reliability ranges from .61 to .87 (with 9 of the 12 over .71), there were only two dimensions on which students indicated any difference when sorted according to their school calendar. On the one hand, students in the traditional-year school demonstrated more self acceptance than those in the multi-track school. On the other hand, students in the multi-track school indicated that their teachers individualized their instruction more than did students in the traditional school. The analysis of student reports on the other composite scales found no differences in the following areas: academic self-concept, peer relationships, independent development, reinforcement of self-concept, career preparation, teacher expectations, or enjoyment of school.

When we examined the additional information provided, we found that students reported no difference in the amount of homework done, in their ability in reading or English, or in their perceptions of the amount of individual help they received from their teachers. Students in both types of school indicated that education was equally, and highly important to them. Further, students in both schools seemed to have missed the same average number of days of school, they reported the same level of anticipation about returning to school after a school break, and believed they retained approximately the same amount of what they had previously learned. Students in both schools also indicated, not surprisingly, that the majority of their friends were

from the same school. The only other area in which any differences were identified was that of family vacations, with more families of students in multi-track schools taking vacations at times other than the breaks provided by the traditional school calendar.

Thus, the similarities of both student academic and non-academic outcomes suggest that the school year calendar is not a major factor in determining the quality of the educational experience which students receive. Now let us turn to the parents in an attempt to understand their perceptions of the impact of different calendars on their students and on their family life in general.

What Do Parents Say?

In general, parents of students in both the traditional and multi-track elementary schools were very satisfied with their child(ren)'s school experiences, with 94% of multi-track respondents and 90% of the traditional-school parents responding either highly or quite satisfied. Further, 89% of multi-track parents and 83% of traditional parents expressed satisfaction with the amount of homework being assigned. When asked several other specific questions concerning the school, there tended to be higher levels of satisfaction among parent-respondents from traditional schools. Concerning the timing of school breaks and vacation periods, 91% of traditional and only 83% of multi-track parents were satisfied. Respondents from the traditional school expressed higher levels of satisfaction with both teachers and administrators than the multi-track respondents [teachers, T (traditional) = 97%; MT (multi-track) = 93%; administrators, T = 96%; MT = 85%]. The differences in favor of the traditional school are surprising in that only 61% of these parents indicate they are satisfied with their opportunities for input into decision-making at the school, while 72% of multi-track parents express satisfaction.

When asked about the advantages or disadvantages of different schedules for children, families, and communities, responses generally fell into five major categories: relationships to children's academic performance, effect on children's non-academic needs and development,

family vacations and schedules, and ability to participate in community. In the following section, a summary of representative comments from parents of both schools is provided.

Impact on Academic Performance

Parents of students in the traditional school generally seemed to feel that it provided a better structure for meeting the academic needs of their students. Comments which indicated support for the traditional school, "my child is a better learner with few interruptions during the school year," or "not having 'off-time' every four weeks is better because they can keep learning" indicate parents' support for the traditional schedule. Parents of students in traditional schools perceived that in their schedule with "not so many starts and stops, learning is continuous." In particular, several parents, who described their children as learning disabled, perceived that the traditional calendar facilitates tutoring and a different kind of learning during the summer. However, approximately 25% of parents of students in the traditional school also wrote about some of the perceived disadvantages: summer months being "just a little too long," kids burning out, student forgetting what has been learned and the need for "relearning after summer vacation."

Thirteen multi-track parents stated that they believed their children remembered or retained information better, and that they were "more focused" when they returned to school. Others did not use those particular phrases, but spoke of the benefits of more regular and shorter breaks. "The children seem to do well because of breaks throughout the year instead of being off for the whole summer."

Impact on Children's Non-academic Development

In terms of non-academic benefits, several of the parents of students in the traditional school indicated that they felt students needed an extended break from the confines of schooling in order to "let them 'catch up' on being a child." One elaborated, "It seems that there is more competition and children are pushed more to learn faster these days. Sometimes we forget the

benefits of relaxation, free, imaginative play which summers allow." Another, agreed, and, using almost the same terms stated that the "traditional school also allows for his social and emotional development .... The time spent 'playing,' building relationships is also very important."

A multi-track parent said almost the same thing: "I feel there is a lot to be said for an extended summer to use their imagination, get exercise, and fresh air, and be excited about beginning a new year rather than feel they are going to school all year long." Another multi-track parent stated emphatically, that he/she did "not believe that children as a whole retain more with year round." However, this type of comment was in the minority. Several stated that, "it gives my child more one to one time," others liked it because their children "do not get out of the learning practice" or because "the children are more productive." Nine of the parents specifically stated that the school year reduced student boredom in the summer, with several indicating that "after three weeks off, ..., they are ready to go back to school. They seem to pick up the school regime a lot faster after going back on track."

Impact on Family Vacations and Schedules

For most parents, it seems that the traditional year offers the advantage of allowing the whole family to operate on a comfortable, predictable, and consistent schedule. In fact, over half of the traditional year parents (36) commented that it permitted all children to be free at the same time. However, one indicated that if there were at least some overlap in vacation time, it would not be an issue having students on different schedules. These parents also reported that having children on traditional schedules made it easier for them to participate in a variety of extra-curricular activities: "With four children -- baseball games, soccer practice, boy scouts, dance lessons, piano, etc. it is difficult keeping schedules straight. Thank heavens for a simplified traditional school!"

However, parents of students in multi-track schools found many beneficial aspects. Having more frequent breaks helped them to "follow the children's homework and progress on 3 week increments" and having the "term end differently for everyone, [makes] homework more

even." One parent stated that it was important to have all children on the same track, while another asserted that they had "chosen to put children on different tracks. It allows a stay at home mom to have quality time with children." The issue of quality time, described, by traditional year parents as an important feature of the summer breaks, was seen by year-round school parents as enhanced by their schedule. "The breaks offer us quality time with my daughter."

The issue of family vacations, seen as key for traditional year families, was also addressed by year-round parents. The advantages which they identified all centered around having more flexibility in terms of times and vacation options for their families. They did, however, suggest that having students on different schedules made planning more complex and coordination difficult. "It detracts from family cohesiveness, both immediate and extended family," said one. "If we use the break time for vacation to visit cousins (which we can't because of other children in junior high and high school), then they are in school and aren't there to play with most of the day." Overall, it appears that it is the issue of planning vacations around a number of different schedules which provides the most challenges for families with some children in multi-track year-round schools, particularly if they also have children on other schedules.

Ability to Participate in Community Activities

A number of the traditional-year parents wrote about the advantages of the schedule in terms of facilitating student participation in summer activities; but did not, at least explicitly, recognize that the wider community could make some adjustments which could address the issue. Representative comments were, "programs planned for the summer can reach the majority of children," "everything seems to be geared towards summer vacation," or "we can participate in summer activities in our community as a family and without the stress of different schedules of bedtime, etc." Several indicated that summer was a better time for students to be off school as there was more to do, while in the winter much more time was spent watching television. Others mentioned that other schedules give students time off when the weather is "colder and [students are] possibly housebound," or felt that the "winter months ... drag with much more time spent in

front of the T. V." Schools being too hot in the summer, and there not being "enough to do during winter/fall/spring months" were repeated several times each. Further, quite a few parents wrote about how the traditional year schedule facilitates students taking summer employment.

Participation in community activities and availability of summer jobs, identified by traditional parents as key advantages of their school's schedule, were rarely raised by parents of students in year-round schools. Their concerns did focus on the need to balance student participation, completion of homework, and getting adequate sleep. Parents also suggested that some children missed some community activities due to lack of community understanding and coordination. They did not see that having breaks in the winter was negative, rather, they identified as positive the fact that their flexible schedule provided additional opportunities for students, such as "being able to play in the snow."

Controlling student truancy was an issue related to school calendar which was raised by both groups of parents. Parents recognized that if some schools are on different calendars or schedules, it is harder to detect student sluffing, since "you can't tell if students hanging around stores should actually be in school."

Summary. What is most striking is the similarity of parents concerns and responses. Parents from both types of school expressed relatively high levels of satisfaction. Both groups feel that the calendars for their schools facilitated student learning, student recreation and play, and quality time for families. Each noted that it is important for families to be able to have vacations together and for students to participate in community activities. Some of these need to be reorganized for families with students in year-round programs; and this appears to become problematic only if they have several children on different schedules.

What Do The Educators Say?

Information gleaned from the interviews helps us to understand some of the advantages and disadvantages of the different organizational models. In some instances, teachers and administrators agree on the advantages and disadvantages of the different types of school, in

other cases, teachers within the same staff differ markedly. In this section, a number of issues concerning the effects of the different school-year organizations are discussed with particular attention paid to the perceptions of teachers and administrators. In general, their responses covered issues related to time, the impact of the calendar on families, organizational factors and district support, communication and professional development, instruction, and administrative issues.

Issues of Time

A common "myth" of year-round schooling is that there is less "down-time," and that students whose education is broken into smaller segments (in this case 45 days) followed by a three week break do not experience the decline in enthusiasm or motivation which is perceived to occur in traditional year schools before the summer break. This perception was voiced by the principal of the traditional school who said, "I think the students are happier in a year round school. I don't see the burn out, the tiredness towards the end of the year." However, teachers and administrators of year-round schools (both single and multi-track) disagreed. "I think you have a little more lost time in year-round schools because you've got that sort of 'I don't care' wind down time at the end of each track change. Plus you have it at the end of the year." Teachers from both types of year-round school concurred. "There's more down time, because basically you've got everything pretty well wrapped up by then [the end of track]". " I do think that you lose a little bit of teaching that last day or two before you go off." However, teachers also agreed that they "probably get back on track the day [they're] back to work" and that their "students came right back in and [they] knew exactly where they all were."

Another common perception concerning academic learning time is that with the shorter breaks in a year-round calendar, students tend to need less review time than students in traditional schools returning after the summer. While some of the teachers said they spent less time on review than when they had taught in traditional schools, most said that there was little difference. One in particular who had previously taught in a resource program (the students for

whom year-round schools are generally thought to have the most positive impact), stated, "The resource kids were like little leaky buckets some days. They'd have it really well one day and the next they wouldn't, so I didn't see much of a difference." Another teacher, whose track was not always divided into neat nine week blocks, indicated that she always had to review if they had left a topic in the middle of it.

The question of whether more frequent and shorter breaks are beneficial to students or teachers (administrators do not get the "intercession" breaks) is not clear-cut either with respect to impact on engaged and productive academic learning time, or with respect to the benefits of the break time itself. Two of three teachers in the multi-track school and two of three in the single-track school would stay with their year-round timetable if given the choice. The third in each case would revert to the traditional year. These teachers, from both kinds of school, generally indicated that they were "exhausted making five moves during the year," that "moving is very hard physically." Although they liked the more frequent breaks, "because I get refreshed so often," they also missed the longer summer vacations, during which one could "completely remove yourself from school." Several made comments like the following: "I don't know of any teacher who truly takes three weeks off and does nothing. There's usually three or four days out of the three weeks that they're still back in the school at some time, or doing something at home." Both teachers and administrators indicated that after a period of time on a year-round schedule, there appeared to be increased teacher burn-out. The problem was exacerbated if teachers from single-track schools chose to teach additional intercession courses in the interests of supplementing their income.

Impact on Families

An argument sometimes advanced by proponents of year-round education in support of the shorter and more frequent vacation periods is that traditional patterns of work and leisure are changing across the nation. There are few areas in Canada or in the United States, and certainly in Utah, where the traditional agrarian schedule dominates. Hence, it is postulated that as

employment patterns change, families will gladly choose to vacation at various times throughout the school year, and that the breaks provided by year-round education will facilitate these lifestyle changes.

For teachers, as with parents, the impact on personal vacations was mixed. For many, the major problem was that different schools operated on different timetables, so that elementary, junior high school, and senior high school students might well be in schools with different calendars. While some teachers wished they had time with all of their family available together and indicated that they often worked while the family went to a cabin, another described it in these positive terms: "It's great for me. I have vacations with them and vacations without them, so it's really nice for me personally and professionally."

Two administrators indicated that with large families and multi-track schools, parents sometimes request different tracks for different students so that they may have some "quality time" with each child. However, another administrator and two teachers interpreted the given rationale for the request with skepticism. They felt that such a rationale masked the fact that although in terms of time, one track might be preferable, there might be a teacher on a given track whom a parent didn't want for a child. One teacher stated that she had heard parents comment in the last few years, "Forget those tracks, we're going for teachers ... Parents are smart; they want to play the game ...." Thus, the fragmentation of families by having children on different tracks is perceived, by some, to be a function of availability of the "best" teacher in the multi-track school.

One positive impact on young children was identified related to year-round schools. One principal stated that she had received "a lot of feedback from parents of younger children who really like year round because it gives kindergarten children a chance to come in, get their feet wet, and then be back home with Mom and Dad a little bit and then back in, and it's not such an abrupt thrust into the cold cruel world." She went on to suggest, with a smile, that it also serves the needs of the mother who may be having difficulty letting go.

Again, the data are mixed. While the year-round calendar is perceived as providing added flexibility for some, its main impact on families is related to the fragmentation which may occur if different levels of school within the same district are on different calendars.

Organizational Factors and District Support

The principal of the traditional school in Delphi District felt strongly that he would choose to move to a year-round schedule if he could gain the support of his parent community. He is convinced that, as the only administrator of a large traditional elementary school (854 students), he does not receive the type of support available to multi-track year-round schools in his district. The latter, he believes, are recognized as needing assistance and are provided with extra resources, extra playground supervisory hours, extra secretarial hours, and a half-time assistant principal. In addition, he perceived that year-round schools were advantaged with respect to services such as might be provided by psychometricians or speech pathologists, "because they make them available all year."

His recollections or perceptions were not shared by all of the administrators of the year-round schools. Although one expressed her belief that "the district meets the needs of the year-round school," the other two were not convinced. One stated, "Certain services, such as district resource referrals, psychologists, some maintenance services, even things like text-book ordering, delivery are not available on anything but a traditional-school basis." He went on to state that the interschool mail service, available on a daily basis throughout the traditional year, is once a week during the summer -- even when the year-round schools are in session. "That's sort of an indicator of how much support and how much care the central office gives." The latter perception was supported by the other principal who added that the central office personnel did not always seem aware of their schedule and sometimes held mandatory inservice activities "in the middle of [their] intercession, or asked for a "teacher to fill out a survey or something right when the teachers are going on intercession ... just not realizing we're even in session." Although comments indicate that districts are more aware of the problem now than at the inception of the

year-round programs, it appears that the level of district support is an issue which needs additional attention.

Communication and Professional Development

A number of issues fall under the heading of communication and professional development. For a four-track year-round school, the reality is that teachers and students on a given track see those on other tracks only 50% of the time. This poses special problems for communication and for developing inclusive processes for feedback, goal setting, and decision-making; it may restrict the use of staff meetings for strategic planning or professional development purposes. When we raised questions concerning the timing and frequency of inservice activities, we found that there are more similarities between traditional and single-track schools, with most of the difficulties and challenges occurring in the multi-track schools. In the latter, for instance, it was reported that it is more difficult to have a viable student government because one quarter of the kids are always "gone." Likewise, setting meeting times for committees in multi-track schools although possible, is not without difficulty. Although the principal of the traditional school said that he would just hold his meeting at a regular time, for instance the first Monday of the month, and expect any available off-track teachers to come, that is not the procedure used by the multi-track school in this study. They have chosen to meet as a staff every three weeks -- on the "track-change day" and to conduct much other business by memo and bulletin. However, the assistant-principal observes that "it is pretty fragmented because one-fourth of the teachers are going off track, and maybe don't care so much what is happening in the next three weeks. One fourth of the teachers are coming on track and so are in a frenzy about the students coming .... They don't necessarily have great attendance because teachers coming on track aren't that worried. Sometimes teachers going off track have substitutes and are ready to leave for vacation."

Other comments concerning inservice activities are worthy of note. The principal of the single-track school talked about how his teachers had gone to a co-operative learning workshop together during the intercession break. Another member of the same staff spoke of how they had

used a professional development day to "bring the staff together around an activity" to enhance team spirit. In a multi-track school, these kinds of activities would not be possible. The assistant-principal spoke about how they have to offer an inservice activity twice in order to reach all teachers. Further, there is no possibility of all teachers at a grade level attending a function together, unless the "off-track" teacher is available during her break. In addition, he felt that many of the best inservice programs are offered by the district during the summer when his school is still in session.

Although several felt that inservice was most easily accomplished in a traditional school, the principal of the traditional school asserted that his teachers were too tired and burnt out by the end of the school year to be interested in participating in summer inservice activities. "If I were to set up an inservice within the next two weeks, I could guarantee you how many teachers would be here. Whereas if we were on a year round schedule I can schedule inservice all year long and know that my teachers are not going to have a problem being there," he said.

Instructional Issues

One of the major areas of interest in examining the different school calendars was the impact that each was perceived to have on instruction. Teachers indicated that they were able to "team" in any type of school, although they recognized that in a multi-track school it was not as easy when teachers were not always present. "It's a matter of creative thought and teachers who want to work together," I was told. Teachers in the multi-track school indicated that they don't team for the basics, but that they team for Social Studies and Science projects "because you can teach those in three week sessions and so you can be working with another teacher on that kind of stuff." In both kinds of year-round schools, teachers seemed to feel that the shorter blocks of time forced them to rethink their teaching. They tried to organize around key ideas in order to complete units within the time blocks, and recognized this to be an advantage over the old "cover the curriculum" approach. One indicated that with the school year broken into a number of blocks, there is a real opportunity to "get into some thematic learning."

In contrast, teachers in the multi-track school recognized that they do not use as many audio-visual materials, nor are they as able to "seize the teachable moment" because it is difficult to know which of three classrooms certain materials are in, and impossible to keep all materials in any one room when they are moving every nine weeks. "You have a tendency of losing things, not remembering which room you put things in and that kind of stuff." However, most also indicated that they had learned to share materials, and displays such as bulletin boards. A major disadvantage of the multi-track schedule appeared to be that some students were away for the traditional holiday celebrations and activities: Halloween, Christmas concerts, President's Day.

Perhaps the most important instructional issue is the use of what is known as intercession time -- the three week breaks between formally scheduled classes. In the single-track school, special classes are taught during the break both to enhance and enrich instruction and to help students who need extra time. At present, although teachers unanimously express disappointment with intercession attendance, the principal reports that between 200 and 250 of the school's 480 students attend. He perceives the intercession to be the biggest single factor in gaining the support of his parent community for the year-round schedule. In addition, he believes that they are starting to see "that very likely the way [they] do intercessions is an example of the way that [they] should teach the rest of the year." Although teachers did not make the same explicit link, they definitely described the intercession with enthusiasm. One teacher uses string art to teach some mathematical concepts. "The first one we do with protractors ... and counting the centimeters, and then they have to wind the string. With the younger kids it's patterning ...." Another spoke about using the intercession courses to help students to "try out some of their other talents and gifts that may be overlooked .... When I do reading classes and math classes it's more like playing with numbers because you're not being tested on it or being held accountable for it necessarily..."

At present, programs such as those offered during intercession are rarely part of the regular program of a traditional school, although some similar activities may be offered during special weeks. In multi-track schools, the tendency has been to dismiss the concept of

intercession instruction as being neither practical nor desirable for them. Certainly these schools do not have the luxury of available space; however, the administrators of the multi-track school both see some form of ongoing involvement of all students as one of the greatest areas of potential for improving their instructional program. In fact, the assistant-principal stated that this is the reason he backs year-round schooling, "because in the long run I see it as having more benefits. Not in the way it's constructed now, but, in the fact that if we can get kids going to school year round, even with the breaks, perhaps eventually we'll fill in those breaks between tracks and the school will become more of a place of community, more of a place of continuous learning."

Administrative Issues and Considerations

Despite the perceptions of the principal of the traditional-year school that he has less support and help than might be desirable, it appears that there are a number of issues with which administrators of year-round schools, and particularly of multi-track year-round schools, have to deal which are not part of the daily routine of the traditional-school administrators.

For the principal of the single-track school, some challenges relate to the staffing and funding of the intercession program. It was the potential of the intercession to meet the needs of some of the at-risk students in the school which convinced both the teachers and the board that it should be implemented. In that particular school, staff identify a lot of abused, neglected, and at-risk students. They believe that "there's more of a need there for the kind of program that a single track, year round affords, offering literally four more weeks on the calendar of additional time the children can spend at their own request." However, there is also the perception that many of the children who most need such a program do not attend. Much time and effort is expended trying to ensure that those students who most need the program are able to attend. Recent, reduced financial support from the district, makes funding and staffing the program an additional challenge for the principal. Finally, although he cannot mandate involvement or non-involvement in teaching intercession, the principal finds that he is constantly trying to monitor the teachers for burn-out,

occasionally suggesting that perhaps they should take some time off and not teach during a given session.

For administrators of multi-track year-round schools, other unique issues need to be dealt with. The assignment of teachers and students to tracks is a tremendously complex issue. Attempting to balance parent requests with the need for equality in terms of ethnic, socio-economic mix and student ability, is no mean task. In the school I studied, track A has been used as the "overflow track;" however, this has placed an undue burden on facilities, bus routes, lunch room, etc. As a consequence, for the next year, the administrative team has made some tough decisions which involve denying some parental requests in the interests of equalizing students across tracks.

Additional pressures on both the time and budgets of the multi-track school are caused by the need to offer assemblies and inservice activities twice if all are to be involved. Scheduling each twice tends to cut down on the number of activities that can be provided. In addition, each time tracks rotate (every three weeks), each bus route changes, and administrators find themselves dealing with numerous niggling issues.

Administrator burn-out in multi-track schools is well documented in the literature (White, 1992; George, 1993; Peletier, 1991). As evidenced by the fact that 26% of the schools in Delphi District are multi-track but serve 36% of the students, administrators are dealing with larger total numbers of students. Because of the constant changes, administrative time is taken up on a continuous basis with organizational changes and with addressing conflicts which arise. Thus, the major planning for succeeding years has to be completed after hours and in the three-week summer break. While other administrators enjoy both a summer vacation and planning time, the administrator of a multi-track school has a never-ending job just to stay on top of the issues needing attention and frequently defaults his/her vacation time. The principal stated,

> It's hard to take time off ... although I have some 20 vacation days a year, I rarely use them. There's no good time and school keeps rolling except for July when everybody takes a vacation and goes home. But I don't take a vacation because I have to order supplies and materials and it's the only time I can plan without having the children and teachers, so it's not a good time to take a vacation. If I

> postpone it, then I just never really quite get to it. I think administrator burn-out is probably an issue ... because there is no time off track for an administrator.

Yet, most of the participants in year-round schools would not return to a traditional organization. One principal stated that he loses two or three of his master teachers every year to a multi-track school, but, that he has never had a teacher request a transfer to his traditional school from a year-round one. Even those teachers from the multi-track school who said that they would choose to return to a traditional year, have not asked for a transfer. Proponents of multi-tracking seem to like a number of things including the utilization of "every inch of space." The principal described the advantages in this way:

> The school is the community center; we're using taxpayer money wisely; we're housing 25% more children than we could. And it happens smoothly and happily and well. It's easy to do and it gives us the ability to maximize our space, our materials. We can buy books, and software and equipment and we don't have 1000 children trying to access it all at one time. We can put a lot of money into supplies and materials and it's used rotationally because not all of the children are here .... I'm sold on the concept and I enjoy it.

Where Do We Go From Here?

At this point we have been able to determine that based on Delphi District's six years of standardized achievement test data, multi-track year-round schools appear to provide a slightly superior educational experience for students in terms of enhancing reading ability as well as in terms of increasing the bottom of the range of scores within a school. Pending further data, we are not able to draw additional conclusions concerning the impact of a year-round schedule on different groups or tracks within a school. We have also been able to determine high degrees of similarity in terms of non-academic outcomes between students in traditional and multi-track schools. Further, parents of both types of school are generally supportive of their respective school programs and calendars.

Although the number of educators interviewed is, at this point, relatively small, we have found surprising unanimity of perception among administrators and general agreement among teachers. All four of the administrators interviewed supported and even advocated year-round schooling. All six teachers described both advantages and disadvantages, despite the fact that

two indicated that they would like to return to a traditional year, primarily for the long summer break.

Several issues arise from these findings which should provide the basis for further reflection and discussion. For example, it is still important to clarify the distinctions between those differences among schools which are conceptual in nature and those which are in fact, purely operational. It would also be important to identify the criteria which might be brought to an examination of data such as these in order to make better decisions about the implementation of year-round schooling or other efficiency schedules.

Are the Differences Conceptual or Operational?

The major areas which have been covered in this paper include the identification of different aspects of students' school experiences, parent satisfaction and perceptions of their children's school experiences, and the perceptions and experiences of educators. Major considerations for all groups have included academic and non-academic outcomes, issues related to time, the impact of calendars on families, organizational and district level support, communication and professional development, instruction, and administrative issues. Within each of these topics, it would be possible to identify both conceptual and operational issues. Three examples will suffice.

In the area of impact of the school-year calendar on families, several *concepts* appear to be important, including: *quality time with children*, *family vacation time*, and *opportunities for student employment*. Although the support and enhancement of these concepts is not negotiable, how they are implemented may well be subject to change. If the total available time is unchanged, then quality time with children may likely occur both during shorter and more frequent school breaks, as well as during the more traditional long summer holidays. Likewise, family vacations may occur during summer, ski season, Fall festivals, extended Spring breaks, etc. With respect to student employment, as long as the total time available is not reduced, then a different calendar may require thinking about different ways to organize, or *operationalize*, employment

opportunities, for example, job sharing, rotation of students in particular jobs, employment mentorship programs throughout the year, etc.

A re-examination of the concept of *instruction* might lead a school staff to determine that it wants to eliminate the traditional subject labels and barriers between disciplines, and move to a team approach emphasizing core academic concepts, technical, enrichment, and personal development areas.[2] This might lead to a schedule with blocks of varying length and core groups of teachers working with smaller groups of students. The way these blocks might be operationalized would indeed be different depending on the length of the day or term on which the school was operating.

A third example of the difference between conceptual differences and operational ones might be drawn from the area of administration considerations. In assigning students to classes and teachers, one administrator might decide that accommodating parent requests was the concept of paramount importance; another might determine that equity of opportunity and program is the concept which must take precedence. Each of these concepts would result in a different operational measure for assigning students to teachers, groups, tracks, etc. Hence, the first principal would take care to communicate with parents concerning their preferences, while the second would be concerned to achieve an appropriate balance of students from different socio-economic, racial, linguistic and ability groups -- regardless of parent preference. Again, each of these would have ramifications depending on the school schedule, but it would be the concept, not the schedule which would determine how the issue was addressed.

Likewise, for bussing, resources, staffing, etc. Sometimes people suggest that in a year-round school, there is a start-up period four or five times a year. In what way is this different from the start-up after the holidays of a traditional schedule? Is this really a different concept or is it purely a different way of operationalizing the divisions of the school year into academic periods and breaks? It is true that some concepts may be more or less readily implemented within

[2] This is, in fact, an approximation of what the staff at Terry Fox Junior High School, Calgary has implemented for their new five-track school.

different organizational models, but it is important to recognize that the school calendar -- whether it is a traditional one, a multi-track year-round calendar, or one which is built around other ideas of shifts, extended days, etc. -- should serve the implementation of those concepts which people believe to be important. It should not drive the way education is delivered in any particular building.

What Criteria Should We Use?

In terms of student learning, this study, and others (Baker, 1990; Bradford, 1993; Gandara, 1992; Perry, 1991) have found small differences in favor of year-round education; many others have found no significant differences -- and yet this findings appears to be generally interpreted negatively. If we find no significant difference in student learning (particularly in the early stages), then might the pilot program not be seen as providing an educational experience on a par with traditional schools? The more useful criterion here might be that no detrimental effects on student learning (both academic and non-academic outcomes) be identified for any group or subgroup, based on ability, achievement, SES, or ethnicity.

It is incumbent upon anyone making decisions about the extension of any educational change to recognize some fundamental characteristics of change: change is always accompanied by anxiety; change takes time; different people will perceive change differently; and change is generally accompanied by an "implementation dip." In other words, changed practice requires support, time, and effort to be as effective and ultimately more effective than previous practice. With this in mind, several criteria might be adopted in order to examine the impact of a change on personnel. If one asks for data concerning satisfaction, the level should be comparable to the level which was in place prior to the change, (one would not expect 100% support in either case). Data should not be collected during the "implementation dip," but should allow for a reasonable time to elapse after implementation.

It should be possible to identify that adequate support for the changed operational practices has been provided. For example, if a school implements an 11 month calendar, but the

district offices remain closed between June and September, then the lack of purchasing, support personnel, mail service etc. may result in negative perceptions which are not directly related to the efficiency, but rather to the support provided. Likewise, if a school enhances its student capacity by 25 - 40% and no additional administrative allocation is provided to that school, the problem of administrator burn-out will be exacerbated.

It is also important to assess the impact of an efficiency schedule relevant to union and professional considerations. While unions and professional organizations have been developed for the protection of their members, the specific details of individual contracts may tend to block the easy implementation of an educational or organizational change. For example, all changes should be considered in the light of the relationship of working hours, conditions, salary and benefits, and no detrimental effects should be permitted. However, changes in contract provisions which do not adversely affect members of different groups might be considered in order to facilitate the wider implementation of efficiency schedules which have been deemed appropriate. In fact, such a response should be seen as consistent with the nature of a professional union such as a teachers' association.

In the case of parents, it is important to ensure that adequate communication mechanisms have been in place throughout the change, that they have had a chance to express their opinions, and that a comprehensive and high level of response is received before decisions are made. Decisions should not be based solely on responses from a highly organized, or vocal minority group (although their opinions should definitely be considered). Further, if implementation of year-round schooling or another efficiency schedule has been accompanied by a change in administration or teachers at a given school, care should be taken to separate the organizational factors from personal and individual ones when decisions are made.

What Can We Say At This Time

This paper has focused on the impact of a change in school-year calendar on participants as well as on the academic and non-academic outcomes of students; however, a number of other aspects might have been addressed. For example, issues related to the costs and benefits of implementing a year-round school program, facility use, the impact on the wider community

The findings from my research studies support many of those in other empirical studies In particular they indicate that student academic performance in multi-track year-round schools over a six-year period in this district exceeded the performance of students in traditional schools, while non-academic outcomes were roughly equal. They also demonstrate that there are a number of issues concerning year-round schooling which need more attention: issues of support services, inservice and professional development, staff collaboration and communication, and administrative support and vacation time. However, all administrators interviewed believed that these difficulties could be overcome by utilizing different communication strategies, by changing the timing of inservice activities, by extending school activities out into the community, or by having a variety of events to which all members of the school community were invited -- whether they were actually on track or not.[3]

In 1991, Perry concluded that few organizations are willing to take the risk to investigate new educational arrangements and warned that

> barriers that predominate are those of habit and tradition -- vacations, student summer employment, collective agreements -- with less consideration of issues relative to learning -- integration of the school and community, access to programs, and remedial and instructional innovation. The educational climate will likely persist with the force of habit rather than the force of logic. In any conflict between logic and tradition, tradition generally wins. (p.15)

[3] One idea which was being considered was "having a Friday evening and all day Saturday session with teachers, with key parents and staff people to spend some time together trying to explore ideas." Some schools had provided substitutes during regular school day or on the track-change day and used that time to sit down together. Likewise, the assistant principal of the multi-track school spoke of his vision that "the school will become more of a place of community, more of a place of continuous learning." He explained that while collaboration was much easier on a traditional schedule, such activities as the "save a stream" project in which the whole school was engaged could provide a way of unifying the community

The data from this study have demonstrated that where educators have had the foresight to embrace new structures and have taken the risks necessary to make them work; then not only taxpayers, but educators, and students alike have reaped the benefits. In order to help the reader to interpret the research findings, I have clarified the differences between conceptual and operational issues, and have suggested some criteria for examining the findings related to the implementation of a model of year-round schooling.

It is my hope that this paper will help to provide the impetus to ask more questions, to collect more empirical data, to resist pressures to unnecessarily preserve the status quo, and to make wise decisions concerning the appropriate educational structures and programs to best meet the needs of students in a variety of unique educational contexts.

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Table 1. Table of student achievement for district year-round (multi-track) and traditional year schools.

Stanford Achievement Test	Year-round Mean	Traditional Mean	T-Value	Significance p = < .05
Total Reading	58.92	52.27	2.24	.032
Total Math	61.67	53.62	1.91	.068
Total Language	50.25	46.24	1.45	.158
Total Basic Battery	57.08	50.51	1.78	.086
Total Science	102.67	55.36	1.15	.276
Social Science	57	52.70	1.21	.238

Table 2. Comparison of school scores with predicted scores.

	Total Reading	Total Math	Total Language	Total Basic Battery	Total Science	Social Science
Predicted Range	41-65	46-76	39-61	40-69	45-67	43-65
*Sch. A 1994	53	59	48	51	56	48
1990	49	50	**36**	46	52	46
(# YRS-1989)						
Predicted Range	41-65	46-76	39-61	40-69	45-67	43-65
*Sch. B 1994	57	71	48	63	60	61
1990	41	**39**	**32**	**37**	45	**40**
(# YRS-1990)						
Predicted range	47-72	51-81	42-64	44-74	48-71	46-71
Sch. C 1994	57	65	52	56	64	61
1990	**45**	**46**	**34**	**36**	52	**43**
Predicted range	39-61	43-73	36-57	37-66	41-64	40-61
Sch. D 1994	*68*	62	*61*	*69*	*75*	*71*
1990	*69*	68	55	*68*	*67*	*65*
Predicted range	49-73	53-82	45-67	46-76	48-71	48-71
Sch. E 1994	47	**39**	45	**39**	56	51
1990	60	59	48	53	52	57

* Denotes Year Round School.

# Indicates the year the school moved from a traditional to year-round calendar.

Bold indicates a score below the predicted range.

Italics Indicates a score above the predicted range.

Table 3. Student Educational Outcomes (EPQ).

Characteristic	Mean - Traditional	Mean - Year-Round	T-score	Sign. *.05
Academic self-concept	24.06	22.63	90.95	.101
Self-acceptance	**21.63**	19.74	91.44	**.002****
Peer relations	44.97	43.17	95.72	.251
Independent development	22.21	25.5	56.45	.206
Individualization of Instruction	16.63	**19.10**	96.35	**.008****
Reinforcement of self-concept	23.75	23.26	88.63	.621
Career Preparation	20.82	20.79	94.34	.965
Teacher expectations	21.15	21.30	97.82	.773
Enjoyment of school	29.93	30.30	97.90	.788
Reading	20.12	19.17	80.47	.294
English	17.42	17.13	91.90	.703
Participation in school activities	21.32	23.33	91.75	.095
Homework	4.09	4.0	78.02	.622
Amount of individual help	3.66	3.54	92.04	.623
Absences	3.73	3.75	72.25	.893
Education	4.25	4.27	100.72	.885
Friends in same school	4.88	4.83	96.78	.522
Family Vacation	3.76	**4.31**	91.70	**.004****
Anticipation following break	2.62	3.31	63.67	.162
Retain after break	3.79	3.56	97.88	.282
Preferred schedule	3.29	3.40	97.99	.699